

Multi-layer substrate structure for Reducing Layout Area

Abstract

The present invention provides a multi-layer substrate structure for reducing layout area, including a first core layer, a second core layer, and a set of coupled transmission line. The first core layer includes a first surface connected to a power supply layer and a second surface corresponding to the first surface. The second core layer includes a third surface connected to a first grounding layer and a fourth surface corresponding to the third surface. The set of coupled transmission lines includes a plurality of first differential signal lines formed on the second surface with a certain line width and a plurality of second differential signal lines formed on the fourth surface with a line width corresponding to the first differential signal lines. The second surface and the fourth surface are connected to a first dielectric layer making the second surface separated from the fourth surface with an appropriated distance. Moreover, the first differential signal lines and the second differential signal lines are oppositely overlapped with at least a portion of the signal line width.